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BIRDS COLLECTED DURING THE WHITNEY SOUTH SEA EXPEDITION. XXXI[1]

DESCRIPTIONS OF TWENTY-FIVE SPECIES AND SUBSPECIES

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The present paper contains the detailed descriptions of the new species and subspecies named in American Museum Novitates No 820.

Haliaeetus sanfordi Mayr

Haliaeetus sanfordi MAYR, 1935, Amer. Mus. Novit., No. 820, p. 1.—Choiseul Island.

DIAGNOSIS.—ADULT.—Upper parts brown, upper back and lesser upper wing-coverts darker; hind-neck lighter and more rufous, lanceolate feathers with pale tips; head still lighter, forehead and superciliary pale ochraceous; chin, malar region, and uppermost throat also pale ochraceous; ear-coverts darker; throat and sides of neck rufous brown, feathers on upper throat with pale tips; breast, belly, thighs, and under tail-coverts dull rufous brown; under wing-coverts dark rufous brown; axillaries pale tawny; upper wing-coverts, scapulars, secondaries, and tertials dark brown (when fresh), pale brown (when old and faded); primaries blackish; entire tail black, tips of tail-feathers pale; in worn specimens the tail is dark brown and the pale tips worn off.

SUBADULT.—Wing and tail as in adult; all feathers of under parts and of upper back with droplike or triangular pale tips; innermost of lesser upper wing-coverts with narrow whitish edges.

IMMATURE.—Similar to adult, but wing-feathers narrower and more pointed; tail longer, tail-feathers also narrower, more pointed, and with pale tips; feathers of crown, nape, and back, and lesser wing-coverts with narrow or broad whitish tips; under wing-coverts and feathers of under parts also with buffy tips and sometimes with buffy shaft-streaks; general plumage coloration darker brown, less rufous; differs from *H. leucogaster* in the equivalent plumage by its entirely black tail, by the

		TAIL-FEATHER	
	WING	CENTRAL	OUTERMOST
♂ ad.	547, 525	259, (235)	207, 206
♀ ad.	575, 548, 535	283, 277, 245	236, 224, 205
	515, 560, 562	250, 269, 267	210, 218, 216
♂ juv.	563, 558	310, 296	248, 248
♀ juv.	535, 550	290, (265)	235, 250

Culmen, 43–45; tarsus, 91–102; middle-toe, 65–69; weight, 2300–2500 gr.

[1] Previous papers in this series comprise American Museum Novitates, Nos. 115, 124, 149, 322, 337, 350, 356, 364, 365, 370, 419, 469, 486, 488, 489, 502, 504, 516, 520, 522, 531, 590, 609, 628, 651, 665, 666, 709, 714, and 820.

brown bases to the feathers of crown and nape; by the darker coloration of belly, thighs, and under tail-coverts, and by the rufous, not whitish coloration of the axillaries; base of inner webs of primaries not whitish, but grayish-rufous.

The measurements agree fairly well with those of *H. leucogaster*, although the wings average distinctly smaller. The wings were measured with a tape over the wing-bend and the central tail-feather with a rule; the outermost tail-feather could be measured with dividers, and its measurements are the most exact. Some of the specimens were apparently incorrectly sexed, there should be less overlap between the measurements of the two sexes. I recorded the measurements of a specimen in the British Museum (Ysabel Is., Brenchley coll., Sept. 1865) as wing 516, tail 231.

RANGE.—Solomon Islands (Choiseul, Arnavon, Ysabel, Vella Lavella, New Georgia, Kicha, Malaita, Guadalcanar, Ugi, and San Cristobal).

The discovery of this eagle will probably come as quite a surprise to most ornithologists. However, specimens of this species have been known for seventy years, but have always been identified as immatures of *H. leucogaster*. They were recorded as such by Gray (1870, Ann. Mag. Nat. Hist., (4) V, p. 328), by Ramsay (1882, Proc. Linn. Soc. New South Wales, VII, p. 29, 672), by Ogilvie Grant (1888, Proc. Zool. Soc. London, p. 188), and by Hartert (1929, Amer. Mus. Novit., No. 364, p. 1).

Soon after I had entered the Solomon Islands in 1929 with the Whitney South Sea Expedition I asked Dr. Hartert by letter about the name of the brown eagle which we found quite common on Choiseul Island. Dr. Hartert wrote me that there was no brown eagle known from the Solomon Islands and that I was probably referring to young specimens of *Haliaeetus leucogaster*. Knowing that young *H. leucogaster* looked quite different, I began to suspect that the Solomon Island bird was a new species, and the examination of a large amount of material after my return has only confirmed this belief.

I must have seen 15 or 20 eagles of this species during my stay in the Solomon Islands (among them many adults) and none of them showed any traces of white or whitish either on the under parts or on the tail. On Choiseul we found the bird commonly on Choiseul Bay along the coast and in the dense lowland forest, and also many miles inland on Mt. Maitambi at an altitude of more than 2000 feet, on San Cristobal, and on Malaita we found it only in the mountains (at about 4000 ft.).

Haliaeetus leucogaster (Gmelin) does not occur in the Solomon Islands and *H. sanfordi* seems to represent it there. This distribution

suggests, of course, the possibility that *sanfordi* might be a subspecies of *leucogaster*. There are several reasons which make me consider *sanfordi* a full species and not a subspecies: *Haliaeetus leucogaster* shows no variation of its coloration in its entire range from India to the Bismarck Archipelago and Australia; the coloration of *sanfordi* is quite different from that of the adult of any species of the genus *Haliaeetus*, and the habits, too, resemble more those of other eagles than those of sea-eagles. *H. sanfordi* seems to live more on phalangers and large birds (primarily pigeons) than on fish and carrion.

The structure of bill and feet and the feathering of the tarsus are practically the same as in *leucogaster*, and *sanfordi* must therefore be included in the genus *Haliaeetus* in spite of the difference in coloration. The genus *Haliaeetus* does not occur in Polynesia, notwithstanding several old reports in the literature.

Gallicolumba sanctaecrucis Mayr

Gallicolumba sanctaecrucis Mayr, 1935, Amer. Mus. Novit., No. 820, p. 1.—Tinakula, Santa Cruz Islands.

Adult Male.—Chin and uppermost throat whitish; rest of throat and upper breast buffy vinaceous on a white basis; forehead, sides of head, and sides of neck light grayish; pileum and nape grayish brown, sometimes with a slight purplish gloss; back, scapulars, rump, and upper tail-coverts with a strong purplish-violaceous gloss; this coloring is sometimes restricted to the edge of the feather, the center being more greenish; patch of feathers on the sides of the lower neck, and the lesser and median upper wing-coverts with a strong violaceous gloss; lower breast, belly, and under tail-coverts grayish brown; iris brown, bill black, feet red.

Adult Female.—Chin whitish with a light buffy tinge; forehead, sides of head, entire throat, upper breast tawny cinnamon; crown, nape, and sides of neck darker, rufous chestnut; back, rump, upper tail-coverts, scapulars, and upper wing-coverts glossy green, of variable color, sometimes more bronze-green, sometimes darker and more moss-green; central tail-feathers as the back, lateral tail-feathers rufous bronze with a black subterminal bar; under wing-coverts, lower breast, belly, and under tail-coverts pale grayish brown; iris brown, bill black, feet red.

Measurements.—6 ♂ad: wing, 138–145 (140.4); tail, 75–80; tarsus, 26–28; culmen, 14.0–15.5. 3 ♀: wing, molting; tail, 79; tarsus, 26; culmen, 14.0–15.0.

Range.—Tinakula and Utupua, Santa Cruz Archipelago.

All the five adult birds collected in March on Tinakula had enlarged gonads; of the four adult males collected on Utupua in September, two had the testes enlarged and two quiescent. All Tinakula birds are molting.

This new species is undoubtedly a geographical representative of *Gallicolumba stairii* of Central Polynesia. The geographical variation and nomenclature of the latter species are, however, still so little clear

and the distinguishing characters of *sanctaecrucis* so marked that it seems advisable to regard it a full species at the present time. *G. sanctaecrucis* differs from *stairii* by different proportions, much smaller size, absence of the chocolate color on neck and throat, and the smaller extent of the glossy patch on the wing bend.

Gallicolumba sanctaecrucis and *stairii* seem to belong to the *beccarii* group of the genus which is characterized by strong sexual dimorphism, a purplish patch on the bend of the wing, and the absence of white on the head. In the *jobiensis*-group male and female are similar (in most species!), the purplish gloss extends more or less all over the wing, and the head has white markings (superciliary, throat, etc.).

The distribution of the two groups in Polynesia is quite remarkable. The *beccarii*-group occurs in New Guinea, Admiralty Islands, Bismarck Archipelago, Solomon Islands, Rennell Island, Santa Cruz Islands, and central Polynesia (Fiji, Tonga, Samoa). The range of the *jobiensis*-group is very similar to that of the genus *Acrocephalus* (see 1933, Mitt. Zool. Mus. Berlin, XIX, Fig. 1). We have the following distribution: *jobiensis* (New Guinea and northern Melanesia), *canifrons* (Palau Is.), *xanthonura* (Marianne Is.), *yapensis* and *kubaryi* (Caroline Is.), *erythroptera* (Society and Tuamotu Islands) and *rubescens* (Marquesas). But no representative of this group occurs either in central Polynesia or in southern Melanesia.

Gallicolumba jobiensis chalconota Mayr

Gallicolumba jobiensis chalconota Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Vella Lavella Island, British Solomon Islands.

Subspecific Characters.—Similar to *Gallicolumba jobiensis jobiensis* Meyer, but white on lores reduced in width and not reaching the base of the nostrils; superciliary also much reduced in width and not reaching so far back on the sides of the head as in *jobiensis;* gray band from the base of the bill to the ear-coverts much wider; sides of the neck dark gray as the nape, not purplish in the lower portion; a band from one side of the breast to the other across the upper back glossy purplish (not as violet as in *jobiensis*); lesser upper wing-coverts glossy vinaceous purple; middle of back and upper tail-coverts glossy greenish bronze; tertials, greater and median upper wing-coverts, lower back, and rump (bronze-) green; white breast shield at least as large as in *jobiensis;* belly black, feathers with a slightly paler (grayish) margin; size apparently larger.

		Wing	Tarsus	Culmen (exposed)
chalconota	♂ ad.	147 + x	29.5	17
jobiensis	♂ ad.	145–149 (147.2)	27–28 (27.5)	15–16 (15.5)

Range.—Vella Lavella and Guadalcanar Islands, Solomon Islands.

The Whitney Expedition succeeded in getting only one specimen of the new subspecies during all the time it spent in the Solomon Islands, but it is fortunately an adult male in breeding condition, although with some of the wing-feathers molting. The species had already previously been recorded from Guadalcanar, Solomon Islands, although only immature specimens. (See 1893, 'Cat. Birds Brit. Mus.,' XXI, p. 599 (note).)

Ceyx lepidus pallidus Mayr

Ceyx lepidus pallidus Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Bougainville Island, Solomon Islands.

Subspecific Characters.—Similar to *Ceyx lepidus meeki* Rothschild, but much paler underneath; breast and belly pale yellowish buff, instead of golden yellowish ochre; frontal spots and spots on the sides of the neck also decidedly paler than in *meeki;* no difference in regard to the coloration of the upper parts.

		Wing	Tail	Bill[1]
pallidus	2 ♂	57, 59	25, 26	29, 32
	1 ♀	59	21	25.5
meeki	2 ♂	57, 60	25	30, 31
	3 ♀	59, 60, 61	25, 26	26, 30, 31

Range.—Buka and Bougainville, Solomon Islands.

Even in the field the difference between the pale Bougainville and the richly colored birds from Choiseul was quite conspicuous.

Ceyx lepidus malaitae Mayr

Ceyx lepidus malaitae Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Malaita Island (3000 ft.), Solomon Islands.

Subspecific Characters.—Similar to *Ceyx lepidus nigromaxilla,* but under parts much lighter, yellow-ochre, not deep ochraceous orange; loral spot and spot on sides of neck equally lighter; upper parts also much lighter throughout; blue spots on head, neck, and upper wing-coverts not violet-ultramarine (R. X), but about phenyl-blue (R. IX); back, rump, and upper tail-coverts between methyl-blue and light methyl-blue, not deep purplish violet; maxilla blackish, mandible deep yellow, not reddish orange.

	Wing	Tail	Culmen	Tarsus	Weight (gr.)
♀ ad.	65	25	38	9	23

Range.—Malaita, Solomon Islands.

I pointed out already four years ago (Amer. Mus. Novit., No. 504, p. 15) that this form was probably new. I have compared the Malaita specimen in the meantime with another specimen of *nigromaxilla* in the British Museum and found all the differences confirmed.

[1] Measured from nostril to tip.

Halcyon chloris mala Mayr

Halcyon chloris mala Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Malaita Island, British Solomon Is.

Subspecific Characters.—Differs from *alberti* by smaller size, the much paler ochraceous coloration of the under parts and the collar, and the lighter, more greenish-, less blackish-blue coloration of the upper parts. Agrees with *tristrami* in the coloration of the upper parts, but differs from it by smaller size and the paler ochraceous under parts.

Range.—Malaita, Solomon Islands.

The measurements of the new subspecies and of the related races are as follows:

	Males		
	Wing	Tail[1]	Bill[2]
Malaita (5)	98–105 (102.8)	61–67 (64.4)	35 –38 (36.5)
Central Sol. Is. (12)	105–112 (108.4)	67–72 (69.2)	40 –43 (41.1)
Guadalcanar (7)	107–111 (108.7)	68–71 (69.1)	36.5–40 (38.0)
Ysabel (7)	97–107 (102.0)	60–68 (64.0)	36 –38 (36.9)
Bougainville, etc. (6)	101–109 (106.8)	63–70 (66.8)	36 –40 (37.6)
Pavuvu (5)	106–110 (107.6)	65–70 (67.4)	39 –43 (41.3)
New Britain (6)	104–111 (106.7)	65–69 (67.8)	40 –43 (41.1)

	Females		
	Wing	Tail[1]	Bill[2]
Malaita (7)	99–106 (104.2)	63–66 (64.5)	36–39 (37.9)
Central Sol. Is. (9)	107–113 (109.2)	68–73 (70.4)	39–45 (41.6)
Guadalcanar (6)	108–113 (109.0)	67–71 (68.9)	37–42 (39.8)
Ysabel (5)	103–108 (105.8)	65–71 (67.8)	36–41 (38.0)
Bougainville, etc. (5)	106–108 (107.0)	65–70 (67.6)	36–40 (38.0)
Pavuvu (5)	105–114 (109.5)	65–70 (67.8)	41–43 (41.6)
New Britain (6)	104–114 (109.3)	68–72 (70.2)	38–42 (40.2)

Halcyon chloris pavuvu Mayr

Halcyon chloris pavuvu Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Pavuvu Island, Solomon Islands.

Subspecific Characters.—Differs from *alberti* by the much paler (less ochraceous) under parts and by the much lighter (more greenish, less blackish) upper parts; the buffy loral spots are enlarged and meet in some specimens in the middle of the forehead. Similar to *mala* in general coloration of the upper parts, but differing by larger size, larger loral spots, and deeper ochraceous coloration of under parts.

Range.—Pavuvu Island, British Solomon Islands.

There is a certain variation of size and coloration within the range of *Halcyon chloris alberti*. The table of measurements shows that specimens from the type locality (central Solomon Islands) are largest,

[1] From the base to the tip of the longest tail-feather.
[2] From the nostril to the tip.

those from Ysabel smallest, while birds from the northern islands (Bougainville, Choiseul, etc.) are intermediate.

Guadalcanar birds differ from typical *alberti* (Kulambangra, etc.) by the more greenish, less blackish-blue coloration of the upper parts, by the admixture of greenish in the black of the loral region and below the eye, and by the lighter blue of the wing. They show thus a slight approach toward *mala*, the differences are, however, too slight for the naming of a new subspecies.

Hartert (1926, Nov. Zool., XXXIII, p. 132) points out correctly that the birds from the Solomon Islands (*alberti*) are very similar to those from New Britain (*tristrami*). The under parts are particularly similar although specimens of *alberti* average distinctly more ochraceous rufous; *alberti* is usually very much darker on the upper parts, crown and nape often having a distinctly blackish tone; wings and tail are usually much deeper blue than in *tristrami;* a few specimens are hardly separable.

Males and females are quite different in all these subspecies, a fact which has not been sufficiently emphasized in the past. Only the males have the bright rufous under parts; females are much paler, the throat is whitish and the whitish middle belly contrasts with the ochraceous flanks.

Ninox jacquinoti floridae Mayr

Ninox jacquinoti floridae Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Florida Island, Solomon Islands.

Subspecific Characters.—Similar to *Ninox j. jacquinoti*, but much larger (see table of measurements); flanks darker, pattern of breast-band tending to continue downward along flanks.

Range.—Florida Island, British Solomon Islands.

When Hartert (1929, Amer. Mus. Novit., No. 364, p. 7) separated *N. j. eichhorni*, he included birds from Florida Island with typical *jacquinoti* from Ysabel. The following table of measurements shows

		Wing	Tail
Bougainville	5 ♂ ad.	190–195 (192.5)	89–99 (93.4)
	2 ♀ ad.	190, 191 (190.5)	96, 100 (98.5)
Choiseul[1]	3 ♂ ad.	186, 197, 201	99, 101, 103
	2 ♀ ad.	189, 195	95, 103
Ysabel[2]	5 ♂ ad.	195–201 (198.0)	96–105 (100.0)
	9 ♀ ad.	198–208 (202.3)	97–107 (100.6)
Florida[3]	2 ♂ ad.	218, 220	120, 120
	2 ♀ ad.	223, 223	118, 121

[1] Type locality of *eichhorni;* [2] type locality of *jacquinoti;* [3] type locality of *floridae.*

that this was not correct and that *eichhorni* is only a slightly differentiated form.

Ninox jacquinoti mono Mayr

Ninox jacquinoti mono Mayr, 1935, Amer. Mus. Novit., No. 820, p. 2.—Mono (Treasury Is.), Solomon Islands.

Subspecific Characters.—Similar to *Ninox jacquinoti eichhorni* (Hartert), but spotting on upper parts finer, more rufous (less whitish), and more bandlike, less droplike; upper side of wing uniform brown with some sprinkling of rufous, not with distinct whitish bars on the upper wing-coverts and outer webs of secondaries and primaries, as in *eichhorni;* the white bars on the under side of the wing (inner webs) are also much less conspicuous or reduced to some whitish mottling; tarsus feathering brownish, not buffy as the abdomen.

	Wing	Tail
1 ♂ ad.	190	100
4 ♀ ad.	192–196 (193.0)	95–101 (99.5)

Range.—Mono or Treasury Island, Solomon Islands.

Tyto alba interposita Mayr

Tyto alba interposita Mayr, 1935, Amer. Mus. Novit., No. 820, p. 3.—Vanikoro, Santa Cruz Islands.

Subspecific Characters.—Of small size; above and below conspicuously washed with buffy, tawny, or ochraceous colors; under parts variable, but never pure white; in the palest specimen there is only a light buff wash on the flanks, on the sides of breast and neck, and on the under wing-coverts; in the most richly colored bird, however (No. 219162), the entire under parts are pale ochraceous tawny, including the under wing-coverts, axillaries, and thigh-feathers; the feathers bordering the facial disk are brownish ochre, not whitish; the wing has a light gray pattern as in *lulu*, but not on whitish or buffy ground (with only a few ochraceous blotches) but on an orange-ochre underground; this ochraceous color shows particularly on the alula, the base of the primary-coverts, the median wing-coverts, and the outer webs of the primaries; it shows still more conspicuously on the tail, which is very pale grayish buffy in *lulu*.

	Sex	Wing	Tail
Vanikoro, Santa Cruz Islands	♂	273	110
" " " "	?	271	111
Vanua Lava, Banks Islands	♂	268	105
Epi, New Hebrides	♀	279	115

Range.—Santa Cruz Islands, Banks Islands, and northern New Hebrides.

The occurrence of a richly colored barn owl among all the white-bellied forms of the Australian Region is quite surprising. It shows considerable individual variation, but even the palest of the four specimens is quite different from any Polynesian specimen (*Tyto alba lulu*

(Peale)), of which I have seen 68 specimens. Aside from the buffy or ochraceous wash of the under parts there are the other above-mentioned characters which distinguish *interposita* immediately from any specimen of the neighboring races.

I am therefore at a loss to understand why Hartert (1929, Nov. Zool., XXXV, p. 100) failed to recognize the distinctness of the birds from the Santa Cruz Islands and New Hebrides. He mentions some of the peculiar color characters, but says: "That no importance can be attached to colour alone, unless its width of variation is known, is beautifully illustrated in two specimens from Vanikoro, one of which has the upper side much richer, and the under side a rich brownish ochre while that of the other specimen from the same locality is white with only a slight buffy tinge." However, even the paler of the two specimens is altogether different from any specimen of *lulu* with which Hartert unites it.

I have seen additional material of this form in other collections. The Rothschild collection contains one specimen of this form from the "New Hebrides" (wing 260, tail 109) with all the typical characters of this species, and in the British Museum I have seen two specimens, one from Malekula (Perry coll.) (wing 262, tail 104, tarsus 60) and one from Espiritu Santo (Farquhar coll.) (wing 279, tail 107, tarsus 61). The Malekula bird has a strong ochraceous wash on the under parts, while the Santo bird has only a faint buffy tinge.

Quite different from *interposita* of the northern New Hebrides is the barn owl of Aneiteum. It is an unusually pale bird. Of three specimens examined by me in the British Museum, one was without any black spots on the under parts, the second bird has a few spots, and the third is spotted as most specimens of *lulu*, to which race these birds are best referred.

Brasil (1916, Rev. Française d'Orn., IV, p. 202) separates the barn owl of Lifu, Loyalty Islands, from *lulu* as *lifuensis*, giving as only character the absence of black spots on the under parts. Hartert (1929, Nov. Zool., XXXV, p. 100) has already pointed out the invalidity of this character, but I may mention that there is in the British Museum a specimen from Lifu, Loyalty Islands (Whitmee coll.) (wing 272, tail 113) with some black spotting on the under parts. The specimen agrees well with other specimens of *lulu*, although the dark pattern on the wing appears coarser. *T. a. lifuensis* must be regarded a synonym of *lulu*.

New Caledonian specimens are apparently always spotted on the

under parts, they also average darker than most *lulu* on tail and upper parts, yet most specimens cannot be separated from a series of Polynesian birds.

Tyto alba crassirostris Mayr

Tyto alba crassirostris Mayr, 1935, Amer. Mus. Novit., No. 820, p. 3.—Boang Island, Tanga group, Bismarck Archipelago.

Subspecific Characters.—Similar to *T. a. delicatula* from Australia, but more robust, feet and bill stronger; height of maxilla in front of the cere 11.0–11.3 mm., against 8.5–9.4 mm. in *delicatula*. Spotting of the underparts and of the under wing coarser; black and white spots on back also larger; tawny-rufous colors in wing, tail, and back very much more pronounced; upper parts darker; bars on wing and tail broader and deeper in coloration; margin of facial disk darker and more conspicuous.

	Wing	Tail	Height of Maxilla
2 ♂ ad.	285, 290	113, 115	11.0, 11.3
3 ♀ ad.	286, 288, 290	115, 115, 116	11.0, 11.0, 11.2

Range.—Known only from the type locality.

The most remarkable feature of this series of barn owls is their great uniformity of coloration. The spotting on the under parts of the two males is somewhat finer than in the females, and one of the females has the upper parts rather more strongly washed with rufous ochraceous, but otherwise they are quite identical. This fact is quite important for the consideration of the barn owls of the Solomon Islands. Hartert (1929, Nov. Zool., XXXV, p. 100) records a specimen from Nissan and one from Vella Lavella as *delicatula*. The American Museum possesses now three additional specimens from the Solomon Islands and the conclusion to be drawn from these 5 specimens is, that every island has a population with its own peculiar characters. All of them agree that they have heavier bills than *delicatula* and I propose, therefore, to include these birds in *crassirostris* until more material is available. One Malaita bird is in coloration very similar to Boang birds, two Nissan birds are similar to *delicatula*, while one Vella Lavella and one Santa Anna specimen appear intermediate.

		Wing	Tail	Height of Maxilla
1 ♂	Nissan	288	113	10.1
1 ♀	"	281	113	10.7
1 ♂	Vella Lavella	279	115	10.6
1 ♀	Malaita	283	112	10.7
1 ♀	Santa Anna	273	109	9.6

Collocalia (vanikorensis) pelewensis Mayr

Collocalia pelewensis Mayr, 1935, Amer. Mus. Novit., No. 820, p. 3.—Palau Island, Caroline Islands.

Subspecific Characters.—Small; tarsus naked; upper parts dark fuscous green, with a brownish tone on the back; crown not very much darker than back; rump pale but no distinct light gray bar across the rump as in *spodiopygia;* there is much individual variation in the color of the rump, the bases of the feathers always being pale gray, the tips, however, sometimes being strongly glossy green, sometimes grayish; inner margins of the wing-feathers not particularly light; feathers of chin and throat soft and decomposed, with fuscous bases and rather sharply defined silvery gray edges, but no shaft-streaks; abdomen dull gray, slightly darker than throat, inconspicuous shaft-streaks on breast and abdomen, more pronounced ones on under tail-coverts; longest under tail-coverts fairly glossy green; white loral spot inconspicuous.

Rather similar to *C. v. bartschi*, but differs by having a light rump, by having back and crown somewhat darker, by having the under parts decidedly lighter, and by having a different coloration of chin and throat; size and proportions also different; both agree in the pronounced development of the silvery basal rami of the feathers of back and belly.

Agrees with *Collocalia fuciphaga mearnsi* Oberholser in size and proportions, but differs by having a light colored rump, by having an apparently entirely naked tarsus, by not having the dark crown set off from the paler back as a dark cap, by the darker and duller coloration of the under parts, and by the reduced size of the white loral spot.

Range.—Palau Islands.

The specific name of this new form is still quite doubtful. But this does not concern me greatly, since the same uncertainty is also true for practically all the other forms of the genus. The new form belongs undoubtedly in the relationship of *bartschi* from the Mariannes but it is very uncertain whether these two forms should be put near (*vanikorensis*) *inquieta* or *fuciphaga mearnsi*. As a matter of fact they represent in a way a connecting link.

		Tail-feather	
	Wing	Central	Outer
pelewensis	109.5–115 (112.9)	41.5–45 (43.2)	47–51.5 (49.1)
bartschi	105 –112 (109.1)	44 –47 (45.2)	50–53 (51.7)
mearnsi	108 –114.5 (112.1)	40.5–46 (43.6)	47–51.5 (49.0)

	Tail-furcation	Tail-Wing Index
pelewensis	4–7.5 (5.8)	43.5
bartschi	5–8 (6.5)	47.4
mearnsi	4–6.5 (5.4)	43.7

Collocalia vanikorensis ponapensis Mayr

Collocalia vanikorensis ponapensis Mayr, 1935, Amer. Mus. Novit., No. 820, p. 3.—Ponape Island, Caroline Islands.

Subspecific Characters.—Very similar to *inquieta*, but much smaller; on the upper parts apparently somewhat less glossy, and not so dark, more brownish; under parts very variable, sometimes very dark (partly on account of greasing), sometimes quite silvery on the throat; very dark specimens show some greenish gloss not only on the longest under tail-coverts, but also on the entire under side, except on the throat; rump of the same color as the back; tarsus unfeathered.

		Wing	Tail-feather: Central	Tail-feather: Outer
ponapensis	15 ♂	106–113 (109.8)	41–45 (43.8)	49–54 (52.3)
	13 ♀	111–113 (111.6)	43–46 (44.7)	50–55 (52.0)
inquieta	11 ♂	117–121 (118.8)	44–48 (45.9)	53–58 (55.6)
	12 ♀	118–123 (119.9)	44–48 (46.7)	55–58 (56.5)
		Tail-furcation	Tail-Wing Index	
ponapensis	15 ♂	7– 9 (8.4)	47.6	
	13 ♀	6– 9 (7.2)	46.6	
inquieta	11 ♂	8–11 (9.5)	46.8	
	12 ♀	9–11 (9.7)	47.1	

Range.—Ponape, Caroline Islands.

Kuroda described very inadequately in 1915 a *Collocalia* from Ruk Island. His measurements (wing 112–119.5, tail 54–56) indicate that the Ruk Island bird is intermediate in size but nearer to *inquieta*. Kuroda compared his specimens with so-called "*fuciphaga vanikorensis*," apparently ignorant of the existence of *inquieta*. He also lets two subspecies of *fuciphaga* occur on the same island, apparently not quite realizing the geographical use of the term subspecies.

Many of the specimens collected by Coultas (in November and December) are molting.

Collocalia lowi orientalis Mayr

Collocalia lowi orientalis Mayr, 1935, Amer. Mus. Novit., No. 820, p. 3.—Guadalcanar, Solomon Islands.

Subspecific Characters.—Similar to *Collocalia lowi whiteheadi*, but upper parts much darker; crown and back with a dark bluish-green gloss; rump not of the same color as the back, but much lighter, light grayish, and with the gloss much reduced; under wing-coverts along the bend of the wing with broad pale margins; feathers of chin and throat with dark shaft-streaks and whitish margins; throat decidedly lighter than dark-colored belly; white loral spot very inconspicuous; sides of head darker; bill very strong, but not as long as in *whiteheadi;* tarsus with a few feathers.

	Wing	Shortest Tail-feather
1 ♂	(132)	(49)

Range.—Guadalcanar, Solomon Islands.

This bird is so different from the other subspecies of *lowi*, that I feel confident in describing it, although I have only one specimen. Unfortunately the bird is molting and the correct length of the tail cannot be determined.

The species is also known from a single specimen collected on Mt. Goliath, Snow Mts., by Meek, which seems to be very similar to *whiteheadi* from the Philippines, but is slightly larger, has the upper parts darker and more bluish and the light-colored throat set off more sharply against the darker belly.

Pitta anerythra nigrifrons Mayr

Pitta anerythra nigrifrons Mayr, 1935, Amer. Mus. Novit., No. 820, p. 4—Tauro, Choiseul Island, Solomon Islands.

Subspecific Characters.—Similar to *Pitta anerythra anerythra* Rothschild, but with much more black in the plumage; forehead, in some specimens the entire upper crown, and even the bases of the feathers of the nape, black; in *anerythra* only a narrow line across the forehead is black and the bases of the feathers of the nape are grayish; the black on the sides of the head and on the chin also more extensive; white bar across the fourth to seventh primary apparently also reduced; coloration of under parts similar, not pale as in *pallida* from Bougainville.

Measurements.—Wing, 96–101 (98.9); tail, 35–38 (36.5); tarsus, 41–43 (42); in *anerythra* the wing measures, 100, 102; the tail, 37, 38; and the tarsus, 43, 44; *pallida* is somewhat larger: wing, 99–108; tail, 38–41; tarsus, 43–46.

Range.—Choiseul, Solomon Islands.

Material.—Bougainville (*pallida*): 2 ♂, 3 ♀; Choiseul (*nigrifrons*) 6 ♂, 3 ♀; Ysabel (*anerythra*) 2 ♂, including the type.

The development of the black in the Choiseul specimens shows a distinct tendency toward the black-headed *pallida*, while *nigrifrons* is quite like *anerythra* in size and coloration of under parts. There is a good deal of individual variation in *nigrifrons*. In some specimens almost the entire crown is blackish, while in others it is restricted to a patch on the forehead. The black bases on the feathers of crown and nape are also varying in extent. None of the Choiseul birds can, however, be confused with the two typical Ysabel specimens.

Coracina lineata makirae Mayr

Coracina lineata makirae Mayr, 1935, Amer. Mus. Novit., No. 820, p. 4.—San Cristobal (Makira), Solomon Islands.

Subspecific Characters.—Male, similar to that of *Coracina lineata malaitae*

Mayr, but slightly larger and heavier; under parts not nearly uniform gray with an indication of whitish bars, but with distinct narrow white bars on breast and upper belly, and with black and broader white bars on the gray of lower belly and under tail-coverts; female, very similar to that of *malaitae*, but with the black bars on the abdomen apparently more, and the white bars less, pronounced; there is, however, a great deal of individual variation.

	Wing	Tail	Weight (gr.)
3 ♂ ad.	140, 141, 141	109, 110, 112	75, 79, 79
1 ♂ imm.	137	....	.....
6 ♀ ad.	133–143 (137.7)	105–111	66, 74, 82

Range.—San Cristobal Island, Solomon Islands.

This form is interesting since it shows a certain approach toward *gracilis* (Rennel) and *lineata* (Australia) by the reduction of the sexual dimorphism.

This species was missed on San Cristobal by Meek, but had been previously reported by Ramsay under the name *sublineatus* (Proc. Linn. Soc. New South Wales, VII, p. 22) and apparently also by Tristram (1879, Ibis, p. 441).

Turdus margaretae Mayr

Turdus margaretae Mayr, 1935, Amer. Mus. Novit., No. 820, p. 4.—San Cristobal, Solomon Islands (1900 ft.)

Adult.—Upper parts uniformly colored, olivaceous brown, darker and duller on the head, warmer and more rufous on lower back and rump; scapulars of the same color as back; although the back seems to have a uniform color, most feathers show an indication of a dark terminal or subterminal band; feathers of lores, superciliary, and cheeks with white bases and blackish tips; sides of head brownish, feathers with whitish shaft-streaks; breast olivaceous gray, every feather with broad gray base, with a subterminal triangular white spot or band, and a broad olivaceous brown or blackish edge; sides of breast and flanks similar, but triangular white spots larger and more longitudinal; middle of belly, thighs, and under tail-coverts white; wing dark brown, outer webs of primaries and secondaries warmer brown (burnt umber); tertials with small white or buff subterminal spots; upper wing-coverts blackish brown with round white subterminal spots; primary-coverts uniform brownish; lesser set of under wing-coverts whitish, median set black, greater set grayish as underside of wing; white band across underside of wing from the fifth primary to the innermost secondary; tail uniform brown without white marks on the outermost tail-feathers.

Immature.—Similar to adult, but upper parts with a somewhat scaly appearance; black terminal, and russet subterminal bars are indicated on the feathers of the back; on forehead and nape the feathers tend to have light centers; underparts as in adult, but white spots in centers of feathers with an ochraceous wash along the black margin; feathers on throat, crissum, and rump softer; tail-feathers more pointed.

"Iris brown ("blue" in young birds), bill black, feet pinkish white."

	Wing	Tail	Tarsus	Culmen	Weight (gr.)
♂ ad.	95 + x	71	36	26	71
♀ ad.	91, 95	66, 66	34, 34.5	24, 25	60, 72
♂ imm.	99	73	37.5	26	70
♀ imm.	92	67	37	25	61

Culmen (exposed), 20–21; hind-toe (with claw), 20 mm.

Range.—San Cristobal, Solomon Islands.

Not uncommon at 1800–2000 feet near the village of Hunogaraha, but very secretive. All the specimens were collected by the natives.

There is some individual variation in these birds; one of the adult females has the white parts of the underside pure white, the other has them strongly washed with tawny ochraceous, particularly on the under tail-coverts, while the single adult male is intermediate, having a slight wash only.

This species is in a way a representative of the *Geocichla dauma*-group, which ranges with *choiseuli* Hartert as far as the Solomon Islands. It differs, however, from *dauma* in so many characters that it must be regarded as a separate species. Particularly significant in this connection are, in *Turdus margaretae*, the uniformly colored upper parts, the different pattern of coloration on under parts and on the wing, the pure white subterminal spots of the upper wing-coverts, the lack of whitish on the outer tail-feathers, and the different proportions.

In some of its structures and proportions *Turdus margaretae* shows an approach toward the genus *Amalocichla*, which, however, has a still rounder wing and much longer tarsus. In *T. margaretae* the wing-formula is: $5 > 4 >$ (or = or <) $6 > 3 > 7 > 8 > 2 >$ (or = or <) $9 > 10$. The wing tip is very short, the longest primary only 11–13 mm. longer than the secondaries. The first primary, which in most other *Turdus* is shorter than the primary-coverts or equally long, is in *margaretae* 9–15 (12.0) mm. longer. This, however, is also the case in some subspecies of *Turdus dauma*.

Vitia parens Mayr

Vitia parens Mayr, 1935, Amer. Mus. Novit., No. 820, p. 4.—San Cristobal, Solomon Islands.

Adult.—General coloration brownish; forehead and fore-parts of crown ochraceous brown; hind-neck, scapulars, back, and rump a dull grayish olivaceous brown (chucker brown); tail brownish; chin, upper throat, and sides of head pale ochraceous; breast, flanks, belly, and under tail-coverts brownish gray; wing brown, edges of outer primaries paler, more cinnamon brown; female like male, but somewhat duller and darker particularly on forehead and upper throat.

Nestling.—Quite different from adult; middle of throat yellowish; breast,

belly, and flanks grayish olivaceous, lower belly and under tail-coverts with a brownish wash; forehead and crown fuscous; back, wings, and tail fuscous brown; under wing-coverts yellowish; the whole plumage very soft.

	Wing	Tail	Tarsus	Culmen	Weight (gr.)
3 ♂ ad.	60–61 (60.8)	50, 50	25–26	17.8–19.0	18.5–19
2 ♀ ad.	52.5, 55	43, 45	23, 24.5	17.6, 18.3	14, 14
1 ♂ juv.	53	40 + x	25	16	17

Range.—Mountains of San Cristobal, Solomon Islands (Dec. 7–14, 1929).

This is the first record of the genus outside of Polynesia. *V. parens* resembles *Sericornis nouhuysi* in coloration a great deal and when collected was believed by me to belong to the genus *Sericornis*. The following table of characters shows, however, clearly that it is congeneric with *Vitia ruficapilla*. It agrees with it in bill and tail, but differs from it sufficiently in general coloration, proportions, and shape of the wing to be considered a separate species.

	V. ruficapilla	*V. parens*	*Sericornis*
Bill	Long and slender, straight	Medium and slender, a little broader at base	Shorter and thicker, fairly broad at base
Mandible	Gonys flat	Gonys keeled	
Rictal bristles	Weak and short	Weak and short	Weak and short
Tarsus/Culmen	24/18.5–19	25–25.5/18	22/16
Tail	Long and weak, graduated	Long and weak, graduated	Short and strong, square
Wing and wing-feathers	More rounded 1st primary long	Less rounded 1st primary shorter	Pointed

This is a mountain species on San Cristobal; the 6 specimens of the collection were obtained near the village Hunogaraha at 1900 feet and above. The presence of one nestling and the heavy molt of all the other specimens points to the conclusion that in December the breeding season has probably just ended.

Vitia ruficapilla castaneoptera Mayr

Vitia ruficapilla castaneoptera Mayr, 1935, Amer. Mus. Novit., No. 820, p. 5.—Vanua Levu, Fiji Islands.

Subspecific Characters.—Similar to *badiceps* (Finsch) from Viti Levu, but more brownish throughout; lores, cheeks, ear-coverts, and sides of face grayish buff, not gray; dark line across eye not pronounced; crown slightly darker and duller; back and rump more brownish; wings and tail brown, not fuscous; under tail-coverts brown, not olivaceous gray; differs from *ruficapilla* in the dark crown and the brown wings and tail; size fairly large.

	Wing	Tail
13 ♂	56–62 (59.2)	55–62 (58.7)
6 ♀	52–55 (54.0)	49–56 (52.7)

Range.—Vanua Levu, Fiji Islands.

Vitia ruficapilla funebris Mayr

Vitia ruficapilla funebris Mayr, 1935, Amer. Mus. Novit., No. 820, p. 5.—Taviuni, Fiji Islands.

Subspecific Characters.—Similar to *Vitia ruficapilla badiceps* (Finsch), but darker and duller; back and rump a sooty brownish gray; wings fuscous, feathers with dark gray edges; tail blackish; sides of head grayish ochre; lores and superciliary buffy; black loral and postocular streak well visible; crown still darker than in *castaneoptera*, on nape almost sepia; lower belly and under tail-coverts brownish; very large.

	Wing	Tail
10 ♂ ad.	59–65 (61.8)	54–60 (57.5)
3 ♀ ad.	54–56 (55.0)	49–50 (49.5)

Range.—Taviuni Island, Fiji Islands.

Phylloscopus trivirgatus bougainvillei Mayr

Phylloscopus trivirgatus bougainvillei Mayr, 1935, Amer. Mus. Novit., No. 820, p. 5.—Bougainville Island, Solomon Islands.

Subspecific Characters.—Similar to *P. t. becki* Hartert but paler, less yellowish underneath; under parts more suffused with grayish, flanks therefore appearing more olivaceous; upper parts slightly darker, crown less greenish, more blackish, thus contrasting more with the back; sides of face dark, superciliary still less conspicuous; light olivaceous stripe along center of crown barely indicated; white tips on lateral tail-feathers reduced or absent, white edges on inner webs of wing-feathers narrower.

	Wing	Tail
12 ♂ ad.	56–60 (58.1)	40–45 (42.4)
3 ♀ ad.	52, 53.5, 55.5	38, 40

Range.—Mountains of Bougainville Island, Solomon Islands.

This form is less yellowish underneath than most forms of *trivirgatus;* it resembles in this respect *presbytis* from Timor, from which it differs, however, in many other respects.

Phylloscopus trivirgatus pallescens Mayr

Phylloscopus trivirgatus pallescens Mayr, 1935, Amer. Mus. Novit., No. 820, p. 5.—Kulambangra, Solomon Islands.

Subspecific Characters.—Similar to *becki*, but under parts almost whitish, just with a faint tinge of yellowish; upper parts as in *becki*, but crown darker, less greenish; white superciliary well developed; no white in tail; differs from *bougain-*

villei in the reduction of yellow on the under parts, the less blackish crown, and the more conspicuous superciliary.

Wing, 56; tail, 39.

RANGE.—Kulambangra Island, Solomon Islands.

Although the Whitney Expedition obtained only one specimen, the Kulambangra bird differs by its whitish belly so markedly from all the other *Phylloscopus* of the Papuan region that I do not hesitate to describe it.

Phylloscopus trivirgatus makirensis Mayr

Phylloscopus trivirgatus makirensis MAYR, 1935, Amer. Mus. Novit., No. 820, p. 5.—San Cristobal Island, Solomon Islands.

SUBSPECIFIC CHARACTERS.—Very similar to *poliocephalus*, but back more citrine, less greenish; crown less grayish, more fuscous olivaceous, sometimes with an indication of a citrine central stripe; white superciliary not as pronounced; sides of head more mottled, less whitish; upper throat white, rest of under parts yellow, even richer than in *poliocephalus;* outermost tail-feathers with broad yellowish-white edges on inner web; inner webs of wing-feathers with broad yellowish-white, not narrow white, margins; differs from *becki* by the rich yellow of the belly, the citrine of the back, and the much smaller size.

	WING	TAIL	WEIGHT (gr.)
6 ♂ ad.	52–55 (53.2)	38–40 (38.6)	8–10 (9.1)
5 ♀ ad.	49–51 (50.0)	35–37 (36.3)	8– 9 (8.5)

Tarsus, 20; culmen, 30.

RANGE.—San Cristobal, Solomon Islands.

We found this warbler fairly common near Hunogaraha (1900 ft.). It occurred anywhere above 1000 or 1200 feet, mainly in second growth formation and on the edge of the forest. It is remarkable that the bird had exactly the same song as *Ph. triv. poliocephalus* and *giulianettii* in New Guinea.

Monarcha castaneiventris obscurior Mayr

Monarcha castaneiventris obscurior MAYR, 1935, Amer. Mus. Novit., No. 820, p. 5.—Pavuvu Island, Solomon Islands.

SUBSPECIFIC CHARACTERS.—Similar to *Monarcha cast. castaneiventris*, but darker throughout; bluish gloss on upper parts and throat stronger, almost metallic; abdomen darker chestnut; bluish black of throat extending farther down on breast and flanks; axillaries mostly black, not more or less chestnut as in *castaneiventris;* thighs completely black; slightly smaller (adult males from Guadalcanar have a wing of 83–86 (85.0), and a tail of 68–72 (70.3)).

	WING	TAIL
16 ♂ ad.	81–86 (83.0)	65–70 (67.4)
4 ♀ ad.	79–81 (80.0)	66–67 (66.2)

RANGE.—Pavuvu Islands (Pavuvu, Banika, Moie, and Kiomie), Solomon Islands.

Interesting is a melanistic specimen (No. 225863) which is completely black, except for some brown-tipped feathers in the middle of the belly. The bird shows thus a tendency toward *Monarcha castaneiventris ugiensis*, which is completely black.

Monarcha barbata ganongae Mayr

Monarcha barbata ganongae MAYR, 1935, Amer. Mus. Novit., No. 820, p. 6.—Ganonga Island, Solomon Islands.

SUBSPECIFIC CHARACTERS.—Intermediate between *nigrotecta* from Vella Lavella, and *browni* from Kulambangra, agreeing in the coloration of the throat with the former, in the coloration of the wing with the latter; the black throat patch is small as in *nigrotecta*, not connected with a black area on the sides of the breast; wing not entirely black as in *nigrotecta*, but greater and tips of median upper wing-coverts white; extent of white on tail also intermediate, the tips of the second innermost tail-feather black, but white on the tips of the four outer pairs more extended than in *browni*.

GANONGA	WING	TAIL
4 ♂ ad.	83–87 (85.0)	73–77 (74.5)
3 ♀ ad.	80, 81, 81	75
VELLA LAVELLA		
6 ♂ ad.	81–85 (83.3)	71–79 (74.5)
4 ♀ ad.	80–83 (81.4)	73, 75
BAGGA		
6 ♂ ad.	86–88 (86.8)	76–79 (77.8)
1 ♀ ad.	80	74

RANGE.—Ganonga, Solomon Islands.

It is interesting that the three neighboring islands, Vella Lavella, Ganonga, and Kulambangra, have such distinct forms. The birds from Bagga Island agree in coloration perfectly with Vella Lavella specimens and might best be referred to *nigrotecta*, although they are somewhat larger than Vella Lavella specimens.